

## **Northeast Brazil Well Drilling Program: Evaluating the Quality of Pumping**

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Presented here is a methodological proposal for sizing up the quality of well pumping works carried out in the Brazilian Northeast Emergency Drought Program.

Our intention has been to supply the public agent-examiners with a tool to develop technical parameters. Thus, any judgment grounded on personal criteria is avoided. Our expectations were to assure the following: work quality, rural water supplies, equality in dealing with the contracted parties and emphasis on collective interest. This prevents, therefore, wrongful use of public funds and, consequently, harm to society.

In analyzing well yield/pumping results produced by the contracted parties, three characteristics were selected: pumping time, variation of rate of flow during pumping, and the "Theis-Jacob" curve standard. However, geological conditions, such as the type of exploited aquifer, and time required until water reaches static level after pumping, were also considered as additional data.

Thirty-six pumping files were accumulated from June 1998 to April 1999. These files were obtained through tests carried out by six different enterprises that worked in the Parnaíba basin, in the state of Piauí. The files were analyzed, and results were compiled.